

From: Steadman, David (AU1652)  
Sent: Monday, September 16, 2002 7:17 AM  
To: STIC-Biotech/ChemLib  
Subject: 09/583,310 sequence search request

NAME: David Steadman  
AU: 1652  
Date: 09/16/02  
Office: 10D-04  
Mailbox: 10D-01  
Case Serial #: 09/583,310

Please search the following sequences in commercial and interference databases:

- 1) SEQ ID NO:5 (polynucleotide sequence) against **nucleic acid** databases.
- 2) SEQ ID NO:7 (polynucleotide sequence) against **nucleic acid** databases.

Please compare the following sequences:

- 3) Please compare the polynucleotide sequence of SEQ ID NO:5 against the polynucleotide sequence of SEQ ID NO:7.
- 4) Please compare the polynucleotide sequence of SEQ ID NO:5 against the polypeptide sequence of SEQ ID NO:6
- 5) Please compare the polynucleotide sequence of SEQ ID NO:5 against the polypeptide sequence of SEQ ID NO:8

*Please save search results to diskette.*

Thank you very much.

David J. Steadman  
Art Unit 1652  
Crystal Mall 1 Room 10D-04  
703-308-3934

RECEIVED  
SEP 16 2002  
STIC/CHEN, D.V.

Point of Contact  
P. Sheppard  
Telephone number: (703) 308-4400

Searcher: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Location: \_\_\_\_\_  
Date Picked Up: \_\_\_\_\_  
Date Completed: 9/25/02  
Searcher Prep/Review: \_\_\_\_\_  
Clerical: \_\_\_\_\_  
Online time: \_\_\_\_\_

TYPE OF SEARCH:  
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AA Sequences: \_\_\_\_\_  
Structures: \_\_\_\_\_  
Bibliographic: \_\_\_\_\_  
Litigation: \_\_\_\_\_  
Full text: \_\_\_\_\_  
Patent Family: \_\_\_\_\_  
Other: \_\_\_\_\_

VENDOR/COST (where applic.)  
STN: \_\_\_\_\_  
DIALOG: \_\_\_\_\_  
Questel/Orbit: \_\_\_\_\_  
DRLink: \_\_\_\_\_  
Lexis/Nexis: \_\_\_\_\_  
Sequence Sys.: \_\_\_\_\_  
WWW/Internet: \_\_\_\_\_  
Other (specify): \_\_\_\_\_

SEQ ID NO: 5

SEQ ID NO:5

HSFMO3

LOCUS HSFMO3 1913 bp mRNA linear PRI 17-APR-1996

DEFINITION H.sapiens mRNA for flavin-containing monooxygenase 3 (FMO3).

ACCESSION Z47552

VERSION Z47552.1 GI:623239

KEYWORDS flavin-containing monooxygenase 3.

SOURCE human.

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 1913)

AUTHORS Dolphin,C.T., Cullingford,T.E., Shephard,E.A., Smith,R.L. and  
Phillips,I.R.

TITLE Differential developmental and tissue-specific regulation of  
expression of the genes encoding three members of the  
flavin-containing monooxygenase family of man, FMO1, FMO3 and FMO4

JOURNAL Eur. J. Biochem. 235 (3), 683-689 (1996)

MEDLINE 96184548

REFERENCE 2 (bases 1 to 1913)

AUTHORS Dolphin,C.T.

TITLE Direct Submission

JOURNAL Submitted (12-JAN-1995) Colin T Dolphin, Biochemistry, Queen Mary  
and Westfield College, University of London, Mile End Road, London,  
E1 4NS, UK

FEATURES Location/Qualifiers

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5'UTR

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1. .1913

CDS

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3'UTR

1693. .>1913

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ORIGIN

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Best Local Similarity 99.7%; Pred. No. 0;

Matches 1595; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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LOCUS       HSFMO3                      1913 bp    mRNA    linear    PRI 17-APR-1996
DEFINITION  H.sapiens mRNA for flavin-containing monooxygenase 3 (FMO3).
ACCESSION   Z47552
VERSION     Z47552.1   GI:623239
KEYWORDS    flavin-containing monooxygenase 3.
SOURCE      human.
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1  (bases 1 to 1913)
AUTHORS     Dolphin,C.T., Cullingford,T.E., Shephard,E.A., Smith,R.L. and
            Phillips,I.R.
TITLE       Differential developmental and tissue-specific regulation of
            expression of the genes encoding three members of the
            flavin-containing monooxygenase family of man, FMO1, FMO3 and FMO4
JOURNAL      Eur. J. Biochem. 235 (3), 683-689 (1996)
MEDLINE      96184548
REFERENCE    2  (bases 1 to 1913)
AUTHORS     Dolphin,C.T.
TITLE       Direct Submission
JOURNAL      Submitted (12-JAN-1995) Colin T Dolphin, Biochemistry, Queen Mary
            and Westfield College, University of London, Mile End Road, London,
            E1 4NS, UK
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Matches 1596; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

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\*\*\*\*\*  
 M I N I S T E R I U M  
 (TM)  
 \*\*\*\*\*

Release 3.1a John F. Collins, Biocomputing Research Unit.  
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MPerch\_n n.a. - n.a. database search, using Smith-Waterman algorithm

Run on: Tue May 11 18:32:03 1999; MasPar time 2467.67 Seconds  
 Total output not generated. 1531.292 Million cell updates/sec

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 Description: (1-1599) from US08617671A.seq

Perfect Score: 1599  
 N.A. Sequence: 1 atggggaagaagaagtcacat.....tttcctgtgtgaccta 1599

Comp: taccctcttcacccgta.....aaagaacaacacatgatt

Scoring table: TABLE default

Gap 6

Mmatch STD : Dbase 0; Query 0

Searched: 602357.seqs, 1181590623 bases x 2

Post-processing: Minimum Match 0%

Listing first 45 summaries

Database:

emb157

Database:

genbank110

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Statistics: Mean 11.379; Variance 5.098; scale 2.232

Pred. No. is the number of results predicted by chance to have a  
 score greater than or equal to the score of the result being printed,  
 and is derived by analysis of the total score distribution.

#### SUMMARIES

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1	1591	99.5	1913	26	HSFMO3	H.sapiens mRNA for fla	0.00e+00
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3	1475	92.2	2106	26	HUMMOXYI	Human flavin-containin	0.00e+00
4	1128	70.5	2584	20	RABFMOA	Rabbit flavin-containin	0.00e+00
5	1023	64.0	2020	29	MM087147	Mus musculus flavin-co	0.00e+00
6	397	24.8	1776	29	GPFCMOX	Cavia porcellus flavin	0.00e+00
7	389	24.3	2601	20	RABFMOA	Rabbit pulmonary flavin	0.00e+00
8	383	23.5	1736	26	PIGFM0A	Pig hepatic flavin-con	0.00e+00
9	376	23.1	1713	28	MM059453	Macaca mulatta flavin-	0.00e+00
10	369	22.8	2134	26	HSFMO2	H.sapiens mRNA for fla	0.00e+00
11	365	22.4	799	28	HUMFMO1	Human flavin-containin	9.71e-302
12	358	22.4	162075	27	HSFMO366	Homo sapiens flavin co	3.69e-295
13	358	22.4	162075	27	HS127D3	Homo sapiens DNA seque	3.69e-295

C	14	348	21.8	2190	20	RABDIAMON	Rabbit dimerhylanaline	9.12e-286
C	15	344	21.5	1246	28	HSFMO368	Homo sapiens flavin co	5.18e-282
C	16	339	21.2	2316	26	HUMFMO5A	Homo sapiens flavin co	2.55e-277
C	17	337	21.1	2326	26	HSFMO5	H.sapiens mRNA for fla	1.91e-275
C	18	337	21.1	2691	29	GPFCMO5A	Cavia porcellus flavin	1.91e-275
C	19	334	20.9	2126	29	MUSFMO	Mouse mRNA for flavin-	1.24e-272
C	20	334	20.9	2310	29	MM087456	Mus musculus flavin-co	1.24e-272
C	21	325	20.3	2148	26	HSFLN0535	H.sapiens mRNA for fla	3.38e-264
C	22	320	20.0	3168	29	MM090535	Mus musculus flavin-co	1.63e-259
C	23	318	19.9	2042	29	RABFMOA	Rat flavin-containing	1.21e-257
C	24	309	19.3	2046	20	RABFMOA	Rabbit hepatic flavin-	3.19e-249
C	25	307	19.2	2157	20	RABFMOB	Rabbit flavin-containi	2.36e-247
C	26	202	12.6	460	28	HSFMO365	Homo sapiens flavin co	5.22e-150
C	27	189	11.8	376	28	HSFMO363	Homo sapiens flavin co	4.12e-138
C	28	164	10.3	810	28	HSFMO364	Homo sapiens flavin co	2.22e-115
C	29	133	8.3	532	28	HSFMO362	Homo sapiens flavin co	1.52e-87
C	30	104	6.5	130467	27	HS798A17	Human DNA sequence ***	4.95e-62
C	31	76	4.8	456	28	HSFMO367	Homo sapiens flavin co	3.39e-38
C	32	64	4.0	69	10	E11404	Linker	2.26e-28
C	33	48	3.0	107388	18	HS9821	Human DNA sequence ***	6.98e-16
C	34	41	2.6	7218	22	I66494	Sequence 14 from paten	9.56e-11
C	35	35	2.3	965	22	AR024229	Sequence 22 from paten	2.95e-07
C	36	37	2.3	7218	22	I66494	Sequence 14 from paten	6.11e-08
C	37	33	2.1	44426	19	CEP53F4	Caenorhabditis elegans	2.97e-05
C	38	34	2.1	216021	27	HUAC004787	Homo sapiens Chromosom	6.51e-06
C	39	32	2.0	215	22	I28278	Sequence 5 from patent	1.33e-04
C	40	30	1.9	31	10	E11401	Primer	2.46e-03
C	41	31	1.9	965	22	AR024229	Sequence 22 from paten	5.78e-04
C	42	31	1.9	10772	19	AF012089	Drosophila melanogaste	5.78e-04
C	43	30	1.9	10772	19	AF012089	Drosophila melanogaste	2.46e-03
C	44	31	1.9	74371	27	AC005365	Homo sapiens Chromosom	5.78e-04
C	45	30	1.9	216021	27	HUAC004787	Homo sapiens Chromosom	2.46e-03

#### ALIGNMENTS

RESULT	LOCUS	DEFINITION	ACCESSION	NID	KEYWORDS	SOURCE	ORGANISM	REFERENCE	AUTHORS	TITLE	JOURNAL	MEDLINE	AUTHORS	TITLE	JOURNAL	FEATURES
1	HSFMO3	H.sapiens mRNA for flavin-containing monooxygenase 3 (FMO3).	U47552	9623239	flavin-containing monooxygenase 3.	human.	Homo sapiens	Eukaryotes; mitochondrial eukaryotes; Metazoa; Chordata; Vertebrata; Eutheria; Primates; Catarrhini; Hominiidae; Homo. (bases 1 to 1913)	Dolphin, C.T., Cullingford, T.E., Shepherd, F.A., Smith, R.L. and Phillips, T.R.	Differential developmental and tissue-specific regulation of expression of the genes encoding three members of the flavin-containing monooxygenase family of man, FMO1, FMO3 and FMO4 Eur. J. Biochem. 235 (3), 683-689 (1996)	96184548	2 (bases 1 to 1913)	Dolphin, C.T.	Direct Submission	Submitted (12-JAN-1995) Colin T Dolphin, Biochemistry, Queen Mary and Westfield College, University of London, Mile End Road, London, EL 4NS, UK	Location/Qualifiers 1..1913 /organism="Homo sapiens" /db_xref="taxon:9606" /clone="1D16A, 1D17A, 1D18A" /dev_stage="adult" /tissue_type="liver" 1..93 1..1913 94..1692 /codon_start=1 /product="flavin-containing monooxygenase 3 (FMO3)" /db_xref="PID:9623240"

